Abstract

A organic semiconductor field effect transistor that can work in the depletion mode or super-inverse mode, comprising: a substrate (1), a gate electrode (2) formed on the substrate (1), a gate insulation layer (3) formed on the substrate (1) and the gate electrode (2), a first semiconductor layer (4) formed on the gate insulation layer (3), a source electrode and a drain electrode (5) formed on the first semiconductor layer (4), and a second semiconductor layer (6) formed on the first semiconductor layer (4) and the source/drain electrodes (5).